REMARKS

Applicants amended the specification, and claims 23 and 88 to address the Examiner's objections and certain formalities. Applicants also amended claims 11, 16, and 45, and added new claims 89-94. Support for the amendment can be found, for example, at page 5, lines 4-21, of the specification. The Examiner's indication that claims 10, 44, 46, 51, 53, 54, 56-58, 60, 73, 74, 76-78, 80, and 82-84 are allowable, and that claims 15, 26, 49, 61-71, 87, and 88 are allowed, is acknowledged. Claims 1-4, 9-16, 18-20, 23-26, 35-38, and 43-94 are presented for examination.

In response to the Examiner's claims analysis, Applicants do not necessarily acquiesce to the analysis. For example, while triols are capable of functioning as a chain extender and as a cross-linking agent, diols can only function as a chain extender and not as a cross-linking agent. That is, a compound capable of being a chain extender is not necessarily a cross-linking agent. Furthermore, Applicants have indeed disclosed the positions of certain reactive groups in certain silicon-containing materials, e.g., at page 4, lines 15-20, wherein a siloxane is shown and described as an α,ω – siloxane resin. Moreover, Applicants do not concede that any particular material is essential for the disclosed compositions. The scope of the claims is defined by the language of the claims, which are clear on their face.

The Examiner rejected claims 1-4, 9, 13-14, 16, 18-20, 24-25, 35-38, 43, 47, 48, 50, 81, 85, and 86 under 35 U.S.C. § 102(b) as anticipated by, or under 35 U.S.C. § 103(a), as obvious over U.S. Patent No. 4,749,764 (Koerner). But Koerner does not disclose or suggest a first material comprising a phenyl methyl silicone resin, as recited in independent claims 1, 35, and 81.

Rather, as indicated by the Examiner, Koerner describes (e.g., at column 2, line 40) a polysiloxane composition having the formula

$$R_a^2Si(OR^1)_b$$
$$O_{\frac{4-(a+b)}{2}}$$

wherein the R^1 group can be a phenyl as well as a methyl group in the molar ratio 0.5 to 1.5:1 (e.g., column 3, lines 12-16). When the R^1 group is a phenyl group and/or a methyl group, Koerner's above polysiloxane composition would result in, for example, a methoxy alkyl/phenyl siloxane, a phenoxy alkyl/phenyl siloxane, or a methoxy/phenoxy alkyl/phenyl siloxane. (See, e.g., the average structural formulas shown in col. 3). But Koerner does not disclose or suggest a phenyl methyl silicone resin, as claimed. Accordingly, claims 1, 35, and 81, and their dependent claims, are not anticipated by or obvious over Koerner.

With regard to independent claim 16, as amended, claim 16 recites a composition comprising a blocked, catalytic crosslinking agent. Koerner does not disclose or suggest a composition having a blocked, catalytic crosslinking agent. Therefore, claim 16 and its dependent claims are not anticipated by or obvious over Koerner.

Applicants request that the rejection over Koerner be reconsidered and withdrawn.

The Examiner rejected claims 11, 45, 52, 55, 72, and 75 under 35 U.S.C. § 102(b) as anticipated by, or under 35 U.S.C. § 103(a), as obvious over U.S. Patent No. 5,998,560 (Decker). As amended, independent claims 11 and 45 recite a composition comprising a blocked, catalytic crosslinking agent.

Decker describes using blocked polyisocyanate as a curative. But the polyisocyanate is not catalytic. Therefore, since Decker does not disclose or suggest the claimed composition comprising a blocked, catalytic crosslinking agent, the rejection over Decker should be withdrawn.

The Examiner rejected claims 11-12, 45, 52, 55, 59, 72, 75, and 79 under 35 U.S.C. § 102(b) as anticipated by, or under 35 U.S.C. § 103(a), as obvious over U.S. Patent No. 5,939,491 (Wilt) in view of U.S. Patent No. 4,565,045 (Elias). Applicants amended independent claims 11 and 45 to recite a blocked, catalytic crosslinking agent.

Wilt describes using blocked polyisocyanate as a curing agent. But the polyisocyanate is not catalytic, and Elias does not remedy the deficiency of Wilt. Therefore, since Wilt and Elias do not disclose or suggest the claimed compositions comprising a blocked, catalytic crosslinking agent, the rejection over Wilt, and over Wilt in view of Elias, should be withdrawn.

Applicants believe the claims are in condition for allowance, which action is requested.

Attached is a marked-up version of the changes being made by the current response.

Enclosed are a Petition for Extension of Time with the required fee, and a Supplemental Informational Disclosure Statement, submitted for the Examiner's consideration. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: February 25, 2003

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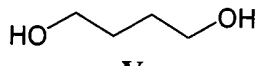
Version with markings to show changes made

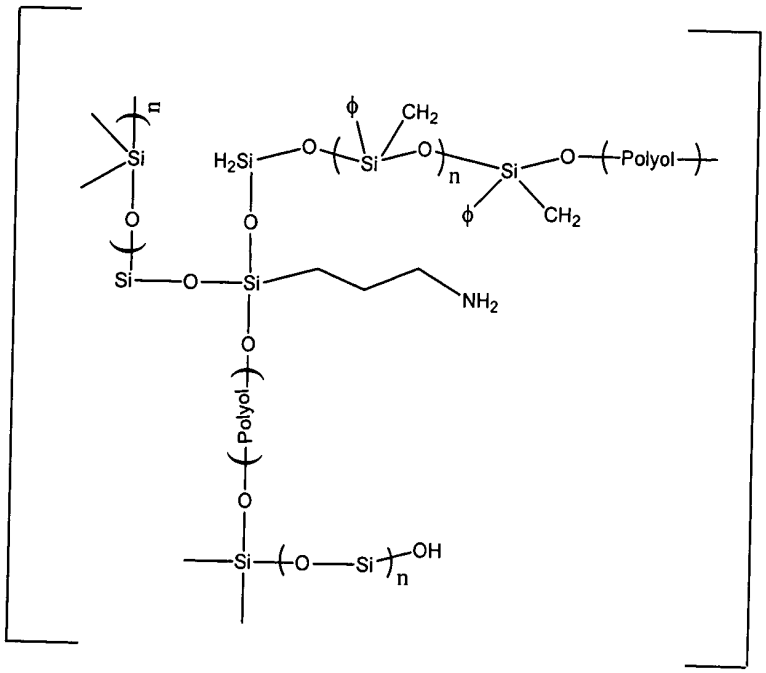
In the specification:

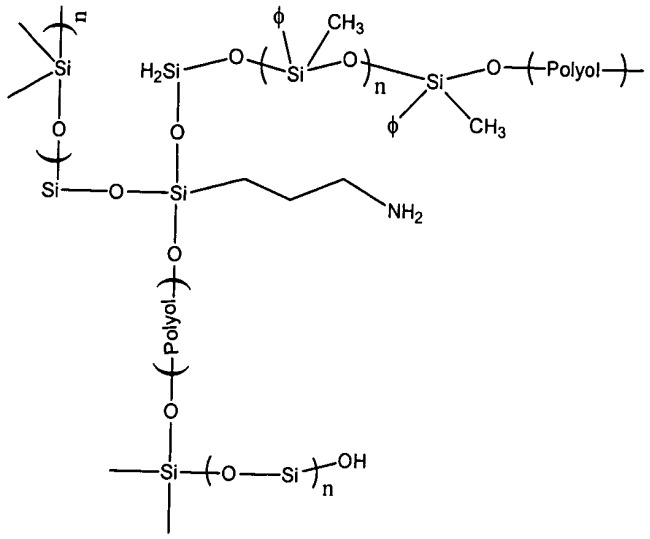
Paragraph beginning at page 6, line 4, has been amended as follows:

In a preferred embodiment, the above coating fluid composition further includes additives that enhance the properties, e.g., physical and/or mechanical, of the cured, polymerized coating such as flexibility and resistance to delamination and cracking. A preferred additive is a polyol, e.g., 1,4 butanediol (V), that can crosslink with the resin during the polycondensation reaction, thereby enhancing the flexibility of the polymer coating (VI).



V





VI

Paragraph beginning at page 10, line 5, has been amended as follows:

Generally, the crosslinking agent includes any [monofunctional or] multi-functional material that will undergo condensation-type reactions with the hydroxyl groups on the silicone resin resulting in covalent bridging of the silicone resin through the crosslinking agent. Some preferred cross-linking agents include, for example, hydroxy-terminated silicone resins, alkoxy functional silanes, such as a gamma-aminopropyltriethoxysilane (available under the tradename Silquest A-1100 from OSI Specialties (Danbury, CT), although there was little observable difference in print durability with changes in ethoxy functionality (see Example 4). In addition, the preferred silane contains functionality that can catalyze hydrolysis reactions, such as an amino functionality on the preferred silane. In some circumstances, a significant increase in the rate of polymerization was observed with amine functional silanes compared to, for example, glycidyl ether modified silanes. In some circumstances, an epoxy terminated silane can stay fluid for about 7 days.

Paragraph beginning at page 11, line 21, has been amended as follows:

The chemistry of silanes, including, for example, their packaging and mixing sequences, are described in Sin Siew Weng et al., Silane Coupling Agents, (November 2000), [available

from http://www.sinrubtech.com/short%20notes/Short%20Notes%205.1.htm,] cited with this application and hereby incorporated by reference. For example, the storage stability of many silanes can be relatively poor such that once an air-tight seal is broken, the silane is preferably used as soon as possible; silanes are preferably mixed first with certain materials before mixing with other materials, such as mixing silanes with silica before adding competing chemicals like glycols, amines, zinc oxide and some antidegradants; and liquid silanes can be prone to hydrolysis so the silanes can be provided in, for example, heat-sealed silane + N330 in ethylene vinyl acetate bags, wax bound silane in pellet form, and thermoplastic resin bound silanes in pellet form.

In the claims:

Claims 11, 16, 23, 45, and 88 have been amended as follows:

11. (Twice amended) A marking composition, comprising:

a polymer first material comprising silicon;

a second material capable of extending polymeric chains of the first material; and

a blocked, catalytic crosslinking agent,

wherein the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.

16. (Twice amended) A marking composition, comprising:

a polymer silicone resin; and

a blocked, catalytic crosslinking agent capable of crosslinking with the resin,

wherein the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.

23. (Amended) The composition of claim [22] 16, wherein the crosslinking agent comprises a carbamate.

45. (Twice amended) An article, comprising:

a substrate; and

a marking composition on the substrate, the composition comprising

a polymer first material comprising silicon;

a second material capable of extending polymeric chains of the first material; and

a blocked, catalytic crosslinking agent,

wherein the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.

88. The article of [claims] claim 49, wherein the [the] optical tag comprises 2,2'-(2,5-thiophenediyl)bis[5-tert-butylbenzoxazole].